

ONTARIO INSTITUTION
FOR THE
EDUCATION OF THE BLIND,
BRANTFORD, ONT., CANADA.

ANNUAL REPORTS

OF

MR. INSPECTOR LANGMUIR;

MR. PRINCIPAL HUNTER, M.A.;

DR. W. C. CORSON, PHYSICIAN AND SURGEON,

FOR THE

YEAR ENDING SEPTEMBER 30TH, 1877.



Toronto:

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REPORT OF MR. INSPECTOR LANGMUIR.

An appropriation of \$32,000 having been voted by the Legislature at its last session, for the erection of a wing to this Institution, and other improvements, the building was proceeded with in the early part of the year, and is now well advanced towards completion. The new structure is designed to afford increased dormitory accommodation for male pupils, as well as an hospital for the sick of that sex in the upper story, and additional class-rooms, as well as work-rooms for light industries. The provision of this additional space was rendered absolutely necessary by the admission of 130 pupils to a building that was only intended to accommodate less than 100. When the new wing is completed, the receiving capacity of the establishment in respect to dormitory space, class, work, and dining-rooms, etc., will be sufficient for 150 pupils.

Since the appointment of the present Principal, a very thorough system of personal visitation of the blind by one of the officers of the Institution, has been established; besides an extensive correspondence having been carried on with clergymen, municipal authorities, etc., in the various parts of the Province, with a view to obtaining reliable information as to the number and condition of the blind of proper school age throughout the Province. From a table which will be found attached to the report upon this Institution in the Appendix, shewing the blind under twenty-one years of age by counties and cities, it would appear that the Principal has official cognizance of not less than 302 of that class, as being *bonâ fide* residents of Ontario. Of that number, 152 are returned as males, and 150 females.

It would further appear that 193 of these 302 blind youths have been awarded admission to this Institution, and, with the exception of 12, have been in attendance during some of its sessions; but of those who have been admitted at one time or another since the establishment of the Institution in 1872, 71 are not now in residence. Of this number, 27 are returned to me as having completed their education, and are now supporting themselves by the trade they acquired in the Institution, either wholly or in part; eight are detained at home to assist their parents; eight are detained at home owing to ill health, eight are, up to this period in the present session, temporarily detained, but are soon expected to return; eleven have not been re-admitted on account of their advanced years, five have died, two have emigrated, and two have had their sight restored by treatment in the Institution.

According to this it would appear that the total number of wholly uneducated blind persons under twenty-one years of age in the Province, is 109.

A careful consideration of these figures, points to the desirability, if not the absolute

necessity, of structurally completing the Institution in accordance with the original design, viz., by the erection of an additional wing to the east of the main building, of the same style and arrangement as the one now being built on the west, and the enlargement of the rear extension. The new west wing, so far as the dormitories are concerned, will be wholly required for males; and the dormitories for females are even more overcrowded than those for males. In view of this I would strongly recommend that the other wing may be proceeded with during the ensuing year.

MOVEMENTS OF PUPILS.

During the sixth term of the Institution, which commenced on the 4th September, 1876, and closed on the 20th June, 130 pupils were admitted. The seventh term commenced on the 12th September, from which date up to the close of the official year,—a period of eighteen days,—122 pupils were received, which number at the time of writing this Report had increased to 136.

The total number of pupils admitted to the Institution during the six full sessions, and the small portion of the seventh included in the present official year, is 193, viz., 113 males, and 80 females. The counties and cities of the Province from which these pupils were received, together with other information of a statistical character, will be found annexed to the Report of the Principal in the Appendix.

INSPECTIONS.

Three statutory inspections were made of the institution during the year, viz.: in the months of March, May, and October.

On the occasion of my first visit on the 24th of March, in addition to the usual inspection, minute enquiry was made into the requirements of the institution in its various departments, to supply which an appropriation of \$3,025 had been voted by the Legislature. For the industrial department, authority was given to purchase knitting and sewing machines and lathes, at a cost of \$370; for the musical department, two of Hamlin's organs, and repairs to musical instruments, costing \$240; for the Educational Department, books and appliances to the extent of \$170; in the way of general furnishing for the house, including 50 iron bedsteads, \$750; and for structural fixtures, etc., \$450. These expenditures, together with \$788.41 previously paid for engine and boiler to provide motive power for the laundry, and other machinery, about exhausted the appropriation. In order to procure increased draught and to render more effective the means of ventilating the kitchen, laundry, and culinary departments, it was recommended for the consideration of the Public Works Department, that the chimney-stack of the extension building be raised twenty-five feet. The recommendation was subsequently approved of and the work is to be proceeded with.

At this visit there were 123 pupils in residence—63 males and 60 females—of whom 22 had entered the Institution for the first time that session, 24 having been continuously in the school since its first establishment. Twenty-four of the number were over twenty one years of age and 24 had been admitted under the provision of the by-laws, as orphans or half orphans. No inmates were paying for their board, all having been admitted upon the certificates of municipal authorities as free pupils.

I saw all the pupils during my inspection. They were all comfortably and many were neatly dressed, and their personal cleanliness seemed to be well looked after. Considering the weak

hody condition of many of this class of defectives, the health of the Institution was very satisfactory. An examination of the physician's journal showed that while a good many were requiring treatment, it was chiefly for trifling ailments. The dietary list and the meals were examined and found to be varied in supply and the food of good and wholesome quality.

At my second visit on the 30th and 31st of May, the names of the 125 pupils were on the register, although only 122 were in the Institution at the time, the other three being absent on leave. Although the health of the house was generally good, the physician reported that two or three of the pupils were so weakly in constitution as to preclude attendance at the literary or industrial classes. The Principal was instructed to send such cases home unless their ailments were of a temporary nature. Certain suggestions were made to the physician with a view to his keeping an exact record of all cases of sickness as well as of the remarks and recommendations he might find it necessary to make in respect to the sanitary condition of the Institution, the dietaries, etc. It was noticed on this occasion that the personal clothing of some of the pupils was in rather a dilapidated state, the Principal stating that he had been unable to prevail upon the municipalities to furnish a change of clothing, and that the parents were too poor to do so. This state of things shews the necessity for levying a small tax upon all municipalities as recommended in my last Report, in order to keep indigent pupils properly clothed and to defray their expenses to and from the Institution.

Certain recommendations were made to the Public Works Department, with a view to improving the plans of the new wing, which was about to be commenced, and which subsequently received attention.

As the Principal had received leave of absence for the three vacation months, his arrangements for the supervision of the premises, and for the visitation of blind pupils at their homes, as well as for carrying on the general work, were submitted and approved of.

Satisfactory arrangements, similar to those made in regard to pupils of the Institution for the Deaf and Dumb, had been entered into with the various railway companies for sending the pupils home at the close of the session.

My last inspection was made on the 5th and 6th October, when every inmate was again seen and every part of the premises examined.

The condition of the dormitories was fair as to cleanliness, but the reverse as to order. In fact, neatness and tidiness cannot be expected in the sleeping rooms until the new dormitories are ready, and the old ones re-arranged and furnished with clothes presses. When that is done I look for great improvement, as they must be looked up during the day, in order to prevent lounging upon the beds. The other portions of the building were found in admirable order.

When I paid this visit, although the seventh session of the institution had only been commenced about three weeks, there were 123 pupils in residence—63 males and 38 females. The promptness with which pupils had been sent forward, indicated the existence of an excellent system of supervision over the blind of the Province, by the authorities of the Institution, and a growing appreciation of its advantages by parents and guardians. The number of pupils more than exhausted the dormitory space, although the excellent natural ventilation justified a little overcrowding until the new building is ready for occupation. The appearance of the pupils was very satisfactory. As the supply of milk did not appear to be quite sufficient for the needs of such a large number of pupils, many of whom are very young, authority was given to add to the number of cows.

The yield of roots and vegetables from the land attached to the Institution was exceedingly good, considering the quality of the land, and was reported to be sufficient for the requirements of the establishment.

EDUCATIONAL.

The educational department of the Institution comprises three branches, viz.: the literary or academic, the musical, and the technical or industrial. In the literary department there are four teachers, the studies pursued being much the same as in the ordinary common schools of the Province. Owing, however, to the physical defect of the scholars, a great deal more patience and ingenuity has to be exercised by the teachers of the blind than is required in the cases of seeing pupils. The aids and appliances used in this institution for educational purposes are the best and most advanced known to the specialty, and from enquiries that I made, the progress of the pupils in the various branches is satisfactory and encouraging. Excellent discipline and the most commendable regularity and order prevail in the general conduct and management of the literary classes.

Great importance is attached to the musical education of the blind in all institutions of this kind, and so far as I can judge, very fair progress is being made in this specialty at the Ontario Institution. The Principal complains, however, that the teaching staff in this Department is not equal, in point of numbers, to the requirements of the pupils, and that musical instruction has to be refused to a large majority of the pupils applying for it. However, desirable it may be to make the education of the blind in the musical department as practical as possible, so as to enable them to make a living by the art when they leave the Institution, there can be no doubt that music is a great pleasure and solace to them in the great loneliness of their physical affliction. Very few will, under these circumstances, begrudge the expenditure of even a liberal sum in the way of teachers and musical appliances, in order to provide pleasure and comfort to this afflicted class, even if it is to a certain extent barren of practical results.

The industrial branch is conducted with great energy, and with very satisfactory results. In addition to the willow-ware class, in which from 17 to 20 pupils receive daily instruction, 15 female pupils are instructed in the use of sewing machines, and 9 in the working of machines for knitting socks, mits, and woollen goods, while upwards of 20 pupils are taught hand-knitting, besides a large class of girls in plain sewing, crochet, and general fancy and bead work. The instruction in the cane-seating of chairs, which was interrupted for a time, is also about to be resumed. As the time of the senior female teacher in the literary department, Miss Tyrell, is a great deal taken up with the technical instruction of the girls, in addition to the discharge of her regular duties, I have recommended that an appropriation be asked for the salary of a special female instructor in this department. The Principal was authorized to make inquiry with a view to procuring the services of such a person on the 1st January.

OUTFIT TO INDUSTRIAL GRADUATES.

The question of furnishing an outfit to pupils who graduate from certain of the industrial classes—say from willow-ware, and sewing and knitting machine instruction—has received a great deal of consideration. Of course this outfit must be of such a kind as to enable the ex-pupils to carry on the industry in which they have been instructed in the insti-

tution—a set of willow ware tools for willow workers, a knitting machine for sock or mitten makers, and a sowing machine to those who have become adepts in its use. It appears to me that the adoption of this plan would not only furnish to such graduates the means of earning a livelihood, but is in direct furtherance of the object aimed at in the technical education of the blind, viz. : that the evils of their naturally dependent position may be mitigated as much as possible. To enable this scheme to be carried out as much as possible by the earnings of the blind in the institution, I have recommended that all the profits derived from the operations of the various industries carried on in the institution be funded for the purpose, and for providing books for such of the blind of the Province as are ex-pupils of the institution, and that no portion of them be required to be paid into the Treasury.

FINANCIAL.

The expenditure incurred in the maintenance of this institution for the official year amounted to \$26,913.19. A detailed statement of this expenditure will be found attached to this Report, but the following statement exhibits it in a summarized form, under the various headings of the Estimates for 1877, and also shows the cost per pupil for the different services, and the whole, viz. :—

Subdivision of Estimates for 1877.	Amount expended.	Cost per pupil on daily average.
Medicine, medical comforts, &c.....	\$ 32 95	\$ 25
Butchers' meat, fish and fowls	2,611 26	20 40
Flour, bread, and biscuits	1,089 13	8 53
Butter	907 75	7 09
General groceries	1,691 34	13 21
Fruit and vegetables	256 28	2 00
Bedding, clothing, and shoes	153 34	1 19
Fuel,—coal and wood	3,073 50	24 01
Light,—gas, oil and matches	1,133 25	8 85
Laundry, soap and cleaning	222 52	1 74
Furniture and furnishing	665 53	5 19
Farm,—feed and fodder	495 99	3 87
Repairs and alterations	1,132 45	8 84
Advertising, printing, stationery, postage, telegraphing and expenses	527 77	4 12
Books, and educational apparatus and appliances	639 68	4 99
Miscellaneous	639 39	4 99
Salaries and wages	11,641 06	90 98
	<hr/> \$25,913 19	<hr/> \$210 25

No revenue was derived from the payment of pupils' board during the past year. As stated in a previous part of this Report, the result of the farming and gardening operations of the year has been very satisfactory considering the drawbacks to such operations. The total value of such products, including the dairy, calculated at current market rates, was \$2,269.29, from which should be deducted wages and board of *employés*, and seed, feed, fodder, manure, etc., amounting to \$1,459.60, showing a net profit of \$809.69. From

a return made to me of the operations of the work shops, during the year, it would appear that the receipts from sales, including \$107.94 on hand at close of last year, amounted to \$690.66, and that the payments for material were \$408.42, shewing a balance of \$282.24 at the credit of the industrial account.

The estimates of the expenditure for the year 1878 will have to be increased as compared with the preceeding year, in order to provide for the requirements of an enlarged establishment in all respects.

The recommendations that I have to make for a capital appropriation for 1878 are as follows :—

1st. For another wing to the Institution of the same style and size as that now being erected ; for the enlargement of the rear premises, and for the erection of a house for the Principal.

2nd. A brick coal-shed, to provide storage for 600 tons.

3rd. A root-house and an ice-house.

4th. Furniture and furnishings for the new wing, including educational appliances, etc.

5th. To continue the ornamentation, planting, road-making, etc., upon the Institution grounds.

STATEMENT of EXPENDITURE for the year ending 30th September, 1877.

<i>Medical Department :</i>			
Medicines	\$	cts.	\$ cts.
		9 80	
Medical comforts and appliances		23 15	
			32 95
<i>Household Expenses (Food) :</i>			
Butchers' meat	2,413	75	
Fowls		72 87	
Fish		124 64	
Flour, bread and biscuits			2,611 26
	1,089	13	
Butter			1,089 13
	907	75	
			907 75
<i>General Groceries, viz. :</i>			
Barley, rice, peas, and meal	123	14	
Tea	284	69	
Coffee	189	40	
Cheese	66	02	
Eggs	69	89	
Fruit (dried)	91	27	
Salt, pepper, mustard, vinegar, and pickles	82	33	
Syrup and sugar	728	03	
Unenumerated		56 57	
Fruit and vegetables			1,691 34
	256	28	
			256 28
Carried forward			6,588 71

Brought forward.....	\$	ets.	\$	ets
<i>Bedding and Clothing :</i>			6,588	71
Bedding		44	13	
Clothing for orphans ..		83	22	
Shoes for orphans		25	99	
<i>Fuel :</i>			153	34
Coal		2,809	27	
Wood.....		264	23	
<i>Light :</i>			3,073	50
Gas		1,114	20	
Oil, candles, and matches		19	05	
<i>Laundry, Soap and Cleaning :</i>			1,133	25
Brushes, brooms, pails, tubs, and mops		25	98	
Bathbricks, blacklead, and blacking ..		3	25	
Soap		58	44	
Laundry		52	00	
White-washing, disinfectants, &c.		82	85	
<i>Books, Apparatus and Appliances :</i>			222	52
Library and school books		194	66	
School furniture and apparatus		285	45	
Industrial materials, stationery and prizes		158	07	
Subscriptions for magazines, &c.		1	50	
<i>Advertising, printing, postage, stationery, &c. :</i>			639	68
Advertising and printing		201	58	
Postages, telegrams and express charges		176	47	
Stationery		149	72	
<i>Furniture and furnishing :</i>			527	77
Furniture, renewal and repairs.		476	14	
Iron, tinware, &c		105	67	
Crockery and glassware.....		83	72	
<i>Farm and Garden :</i>			665	53
Feed and fodder ..		265	88	
Stock and implements, including repairs		69	49	
Manure, seeds, plants and labour.....		160	62	
<i>Repairs and Alterations :</i>			495	99
Repairs, ordinary to building, &c... ..		757	19	
Hardware, &c... ..		274	78	
			481	93
Carried forward.....			\$13,982	12

	\$	cts.
Brought forward.....	13,982	12
<i>Miscellaneous :</i>		
Ice.....	1	95
Officers' travelling expenses.....	335	75
Pupils' travelling expenses ...	58	36
Freight and duties	58	75
Incidentals.....	184	58
	639	39
Salaries and wages.....	11,641	06
Total expenditures	\$26,913	19

REPORT OF THE PRINCIPAL.

J. W. LANGMUIR, Esq.,

H. M. Inspector of Public Institutions, Toronto.

SIR,—I have the honour to present, for the official year ending the 30th September, 1877, the Principal's Report of the Ontario Institution for the Education of the Blind.

Literary Department.

With blind persons, as with seeing, the three great initial forces in education are reading, writing and calculation ; and, in this Institution, a large share of our time and ingenuity must always be devoted to the difficult task of bringing these prime movers under the effective control of the blind.

The great difficulties of such instruction are very feebly apprehended except by those engaged in the work ; but, as a deep interest in our work now prevails throughout the Province, it may be well briefly to indicate the nature of these difficulties. At the first glance, nothing appears much easier than to make educational or industrial appliances that *must* help the blind ; but somehow the result is generally found at an enormous distance from success, and the experimenter is apt to become sadly discouraged. I believe that the fallacy underlying nearly all fruitless experiments in this field, is the assumption that a blind child is simply a sighted child in the dark ; and that forms of instruction adapted to the latter will also answer the requirements of the former. Nothing could well be more erroneous or fertile of educational failures. Though he be in the dark, the sighted child's experience of the visible world *corrects his impressions* ; he *thinks* as though he were in the light, and his mental horizon is unaffected. The uneducated blind child *thinks* as well as feels *blindly* ; the horizon of his world is the circle described by his out-tretched arm. His instinctive apprehension of danger restricts his movements, and rooted to a particular spot like a tree, he is apt to take only such exercise as trees enjoy,—a swaying of the trunk, or grotesque and weird movements of the limbs. When he does venture to change from place to place, that all-pervading apprehension betrays itself in his sliding, *feeling*, gait. His nervous organization performed by the facial nerve, and as Spallanzani found in sightless birds, the sightless child when at length induced to venture abroad, soon recognizes, without actual contact, obstacles that would injure him, and he swerves in his path. This mysterious sense exists in children who are at the same time *deaf and blind*, and it cannot therefore be a mere interpretation of varying sounds. Blumenbach and Spallanzani both record similar observations made on birds. The blind child's mental constitution exhibits peculiarities answering to those in his

physique. He is rooted in his opinion with a pertinacity that it requires the utmost firmness to overcome; he is under an abiding apprehension that there exists some desire to mislead him, and he is therefore suspicious and distrustful. Even when asleep, the expression of his features shows that the mind is still on the alert. He rarely avows his real object, he advances to his design with a shuffling gait, while too often, alleging some design entirely remote, even though there exists not the slightest cause for concealment. His impressions of the external world are bizarre and deformed,—being nearly all of them second-hand and coloured by the peculiarities of the actual observer. Even his direct impressions are not correctly translated. His touch enables him, it is true, to say that A is like B and unlike C; but he has no correct conception of A or B, or C. It is well known that blind persons, when restored to sight by surgical skill, have to completely revise their knowledge of even the most familiar objects, though their *comparisons* of these objects remain quite correct. The intellectual process of a neglected blind child is so peculiar, that, by persons inexperienced in such matters he is not unfrequently taken for an imbecile—especially when he happens to exhibit, in connection with his incoherent talk, rhythmical motions of the body. His memory is usually prodigious. Assisted by a hearing of great depth and acuteness, he gains an inexhaustible fund of the most trivial recollections, which he pours forth with great volubility, but with slight application to the matter in hand. His knowledge is an ill-assorted fagot of quotations; his reasons are mere sounds,—mere echoes of some partially understood remark his acute ear has caught. His temper is apt to be unfavourably affected by his low degree of vitality, which, as stated in my last Report, is computed to be on the average fully *one-fifth* less than that of sighted children. Such is the blind child as he is constantly brought to this and similar institutions. With such habits of mind and body, it can now be understood that his instruction must widely diverge, not alone from the instruction of seeing children, but even from the instruction of persons once sighted but now blind. This latter class is also represented among us, and furnishes, as may fairly be expected, many pupils of great promise. The difficulties of teaching those, who at their birth, or at their earliest recollections, were blind, and who have since remained uneducated, are incomparably greater than where the eye and other educating influences have at any time been at work. Those neglected blind, though, in age, men and women, are frequently as helpless as infants; they are unable to wash, dress and sometimes to feed themselves; to ascend or descend a staircase. Their muscular system is so relaxed that they cannot lift even light weights; or, if they do succeed in lifting them, they cannot retain them in their feeble grasp. For a considerable time after their arrival here, they cannot guide or *hold* a lead-pencil, or even pass a wire through as wide an aperture as an ordinary key-ring. So deplorable a state of helplessness is not elsewhere to be witnessed among beings whom subsequent events prove to be capable of high culture and much useful work. How long will the Legislature permit these poor afflicted beings to be so cruelly wronged?

Reading.—As this exercise does not involve muscular fatigue, but is almost exclusively an exercise of the sensory nerves, it becomes one of the new pupil's first studies. In many cases, however, the nervous system is so disused from neglect of all education, that the fingers, though quite soft to the touch, refuse to respond to the unusual call made upon them. It has often required many months of Miss Tyrrell's skilful and patient instruction to recall these long-neglected nerves to their duty; and, under the most assiduous teaching, they never attain that exquisite delicacy of sensation which is illustrated in pupils that have been under instruction from a tender age. Several of the latter class can read with facility embossed type through two, three, and even four folds of a cambric handkerchief. In the earlier educational experiments it was thought essential as a first step, to teach the blind the true forms of the letters, as a seeing child is taught, but experience has shown the fallacy of this. Expert blind readers are as a rule quite ignorant of the true forms of those very letters, that they can instantly recognize by touch. If they attempt to *draw* these printed characters, as they conceive them to exist, their ignorance of their real outlines will at once become apparent. For this experiment, such letters should of course be chosen as do not happen to coincide in shape with the letters the blind are accustomed to use in writing. The reading of a blind child is therefore a very different process from sighted reading. A letter blind reader is taught to call a letter that imparts a given sensation to his finger, *a*; a letter imparting a different sensation, *b*; and so on. Now it so happens, that the finger receives the same sensation from two elevated points within a certain range (say from $\frac{1}{16}$ to $\frac{1}{8}$ of an

inch) of each other as it does from a continuous line of the same length. Hence letters that are very different to a sighted reader, e.g. *e* and *s* are identical to the sightless, and must be either one or both replaced by less equivocal forms. Hence also, *point* alphabets can be used by the blind with equal facility as *line* alphabets. The essentials of a blind man's alphabet are (1) that the forms are characteristic *to the touch*; (2) that they are of sufficient size to be instantly recognizable. Further, though it is not essential, it is most desirable that the letters be legible to seeing persons, who thus may assist the blind reader. A few experiments are sufficient to decide the proper *size*. In the average reader it is found that embossed letters cannot be easily identified unless they are at least $\frac{3}{16}$ of an inch in each of their dimensions. Dr. Moon's books, which can readily be perused by even horny-handed readers, appear to owe their legibility less to the semi-arbitrary characters used, than to the *large size* of these characters, which are more than a quarter of an inch each way. There has been a far greater variance of opinion as to the proper forms of the letters. An enumeration of the costly experiments in this direction would surprise those unfamiliar with the subject. These experiments go back as far as 1575, when Rampazetto first attempted embossing for the blind. His wooden stereotypes bear the same relation to the beautiful prints of Mr. Kneass or of Mr. Huntoon, as the types of Gutenberg, Faust and Schoeffer bear to the publications of the Clarendon or the Riverside press. A most unseemly and disastrous war of alphabets has prevailed, especially in England, and has retarded all instruction of the blind. Fortunately, Dr. Howe's sagacity led him at the very outset to adopt the Roman type, though with some peculiarities that further experience has revised; and the Roman type, in one form or another (all legible, though not all *equally* legible, to both seeing and blind), has ever since maintained its ground in American Institutions. The perplexities in England have become so serious, that the School Board for London were last year forced to investigate the question, and announce some definite policy. A conference was held at the Board offices on July 21st, 1876, and attended by representatives of the various typographical systems, and by several members of the Board. The conclusions arrived at were exclusively in favour of the Roman character, though a qualified approval of Moon's books was appended, on the ground that (English) publications for the Blind in Roman type are still imperfectly produced, and that "books in Dr. Moon's character have been already partially adopted." It is to us a highly suggestive and instructive fact, that England is thus in 1876 only painfully struggling towards the conclusions that were reached in America forty years ago. It is so far encouraging that sound views have at length begun to prevail, but in England the whole question of the education of the blind requires revision, and it is not a mere question as to particular implements of instruction. Such special and technical education must be removed from the status of mere private charitable work, and also from the status of a mere addendum to public school work. The School Board itself is forced to take refuge in its own helplessness, for it adds the opinion "that it is not in the power of the Board to do more than to record these (the above) conclusions, and then accept the present state of things." Nearly a century has now elapsed since Valentine Haüy opened the first Institution for the Blind, and the experience of the century proves that the training of the blind requires to be under the control of the State, either with such machinery interposed as exists in the United States Institutions, or better still with no machinery interposed, as in our own Institution, and as in the Institutions of France, Germany and Austria. It has further been quite distinctly proved that the administration of such institutions requires to be kept quite apart from the general school system of the country. In 1854, the old Province of Canada voted a sum of \$80,000 for the establishment of an institution for deaf mutes and blind persons, and Dr. Ryerson was requested to undertake its organization. But the Superintendent of Education felt that the proper functions of his bureau related to the general system of Public Instruction, and he declined to add to his already vast undertaking the organization or oversight of an institution so special and technical in its character. Considerable delay ensued, but this delay, though injurious to the defective classes then eligible for instruction, saved us from the serious error of combining deaf mutes and blind persons in the same institution, as well as from the equally serious error of making such institutions mere pendants of the Public School system. The relation of the State to its youth and to its defectives is now construed in a much more comprehensive sense than would have been admitted a few years ago. In recent debates in the House of Commons, which I had the pleasure of hearing, remarkably broad views were, on both sides of the House, expressed regard-

ing the duty of the Government in such matters, and the tendency of the most advanced opinion is to place the control directly in the hands of the Executive. It is very reassuring to us in Ontario to find that the general policy of our Educational and Public Institutions is thus approved and imitated by some of the most distinguished publicists and statesmen of the day.

Our main supply of literature and class books continues to be drawn from the fonts of Mr. Kneass (Philadelphia), and the American Printing House for the Blind (Louisville). During the past year no remarkable additions have been made by these publishers to the standard literature for the blind, their embossing presses being engaged on important musical publications, which will be briefly noticed below. The American Printing House, under Mr. Huntton's direction, has, as an experiment in one of its most recent class books (Mrs. Little's Spelling Lessons), substituted coloured manilla paper for the needlessly expensive white paper hitherto employed. The quality of the paper selected is not as yet quite satisfactory, being deficient in body and firmness, but doubtless Mr. Huntton's fertility in expedients will carry him over this difficulty. Even as the paper now is, this change forms a valuable advance, as greatly cheapening books for the blind, and also as relieving the eyes of sighted teachers from the intolerable glare of white embossed-prints. Dr. Moon has long used as his material a clay-coloured paper, which, however, owing to its soft and spongy rag-texture, wears badly in the school-room. I have suggested to Mr. Kneass, whether he also cannot employ for his publications a cheap coloured paper, and he has replied with kind promptitude that he will give the matter his early attention. While Mr. Kneass has this subject under advisement, his paper-maker might in the meantime instead of *bleaching* his present paper-pulp, *colour it*. Instead of using large quantities of chloride of lime and thereby corroding the fibre, while bleaching to a dazzling white that is most pernicious to the sight of our teachers, the manufacturers of paper for the blind would much more usefully add to the pulp a small quantity of soluble Prussian blue, which, while uninjurious to the fibre, would give the paper a light azure tint, grateful to the weary sight of teachers whose whole lives are spent in teaching from these embossed books. The difference of cost should, if anything, be in the way of reduction, as a few ounces of Prussian blue would take the place of whole hundredweights of chloride of lime. This change is certainly feasible. But it has further occurred to me whether a tough translucent paper could not be made, and be so embossed with coloured ink as to shew the colour through the paper, the ink at the same time containing some stiffening ingredient that would give the "relief" greater resistance to compression. The tension that paper suffers in embossing produces a local thinness of which advantage might be taken in the way just suggested. Relief printing in translucent coloured outlines would not only be much more legible and attractive to seeing teachers, but partially-blind finger-readers (of whom there are a large number in every Institution) would much more easily keep the correct order and direction of the printed lines.

During the past year our use of (New York) Point Print has been greatly extended in various directions. Of our present pupils 33 girls both read and write point print, many of them with great ease and rapidity; 30 boys can read it, and 28 of these can also write it. For the reasons detailed in my Report for 1875, the N. Y. Point as arranged by Mr. Superintendent Wait, has been preferred to the Braille point character, and adopted not only in this Institution, but in most other similar institutions on this continent. At the same time, the French character has undeniable merits, and it is especially attractive to the musical blind on account of the treasures accessible to them in the Braille point print. Either form derives its great importance from the fact that it can be both written and read by the blind themselves, and that it thus opens up free communication between blind correspondents or between blind persons and their seeing, point-writing correspondents. The applications of this useful art seem almost endless. Miss Tyrrell has formed an experimental class in arithmetic and algebra, and has shewn with her characteristic skill and ingenuity the application of point print to mathematics. I have continued to improve our mechanical appliances for the writing of this character. In its present form our "guide," as it is technically called, consists of a perforated brass sheet 5 cells broad by 52 cells long, with a connected back-plate, also of brass, and so grooved as to admit of very close writing without confusing adjoining lines, and the guide being removed only after the completion of five lines. By actual experiment I find that average pupils will write from dictation 40 lines in about 40 minutes. These 40 lines cover an actual area of paper $2\frac{3}{4}$ inches by $11\frac{1}{2}$ inches and represent 31 printed lines, or nearly a page of a volume of "Bohn's Standard Library." For the writing of this quantity of matter

only eight removes of the guide are necessary. As our pupils write, the lines are already so close that additional punctures on the reverse side, as suggested by Dr. Armitage, would completely sever the paper; but Dr. Armitage's contrivance is applicable to many forms of point print slates.

Dr. Armitage, who shares the affliction he seeks to mitigate in others, has for many years devoted his wealth and a highly cultivated intellect to improving the education and the educational appliances of the blind. I had the pleasure, this summer, of examining, at his residence in London, maps and apparatus, on the details of which, I believe, he has spent years, either elaborating improvements with his own hand or suggesting them to others. The *papier mâché* relief map has, under his direction, with great success, been adapted to the use of blind scholars, but the perishable nature of the material would disqualify such maps for use in our class-rooms, unless, as now in England, the worn out maps could be readily and cheaply replaced. If these latter conditions could be satisfied, and if the N. Y. Point characters were substituted for the present Braille characters, these *papier mâché* maps would form a most valuable contribution to our geographical appliances. The same cheap material has already furnished us with models for the teaching of Physiology, and in countless other ways could be applied to the instruction of our pupils in the industrial as well as the literary departments, if I had only at my command a little more mechanical assistance. During the past year the utmost advantage has been taken of our present facilities for making apparatus. Under Mr. Wiekens' direction, the carpenter has this summer constructed some fine physical dissected maps for class room use, and much other useful work has been done. The expenditure which last year you kindly approved for certain tools, and light machinery, has already been repaid to the Institution with usury, and I trust that you will feel yourself warranted in pursuing still further the same policy. A constructive and repairing department must always form an essential feature of an Institution so highly specialized as this is. The mechanical work that I require cannot be executed by ordinary mechanics for the sufficient reason that it is entirely novel in design, and also because certain technical details must be worked out with an exactness that mechanics unfamiliar with our special wants cannot attain or even understand. One example will suffice to illustrate this. In appliances for point print writing, the cells must be so exactly related to each other that an error to the extent of the $\frac{1}{32}$ of an inch would greatly confuse a blind reader; and if the error amounted to $\frac{1}{16}$ of an inch, the appliance must be discarded as useless. Yet, in the guide, that we every day employ, there are no less than 260 cells requiring these delicate relations. A blind man's translation of his finger impressions is strictly literal, and where this imperfect finger-sight is substituted for normal vision, the corrections and compensations that the eye unconsciously makes are not to be counted on in any appliance intended for blind persons. By means of G. G. Lambden's mechanical ingenuity, now available, during only the half of each day, I have hitherto, though at times with extreme difficulty, managed (1) to maintain the carpenter's repairs throughout the entire Institution, and (2), to keep in motion the numerous appliances of the classes, and the industrial rooms. When the carpenter's repairs were attempted to be done (for they never were efficiently done) by outside labour, you will remember that the inconvenience and expense were so excessive that we were, in a manner, forced into the present convenient and economical system. The second branch of Lambden's work is of so technical a character, that to be of any service to me, a mechanic requires to have a special aptitude for the work, and then under my own eye, to undergo a training in details. The large extension now being made to our buildings and the new class and work rooms, about to be opened, will, of course, vastly increase the work of general maintenance—repairs, as well as the making and repairing of special appliances. Under these circumstances, I must ask that you will kindly arrange to give me Lambden's work for the entire day. This arrangement ought to commence with January, 1878, so that I may have all my apparatus, ready for the new buildings whenever they are ready for occupation.

The use of the type-writer, as far as opportunity would admit, was practised throughout last session, but our buildings are now so completely overcrowded and our teachers, are so fully employed that special instruction in this, and in many other important branches will have to be deferred. In my last Annual Report, I quoted Principal Campbell's opinion of the type-writer and its importance to the blind. While visiting the College at Upper Norwood, this summer, I requested a demonstration on the machine at the hands of Principal Campbell him-

self, who is quite sightless. The rapidity with which he printed a sentence was truly marvellous. The time consumed would certainly not exceed one-half the time that I should require for the writing of the same sentence even at my best speed. Superintendent Patten of the Arkansas Institute for the Blind, reports, that already, in Washington City, "*two blind men do a profitable business as copyists, by means of the type-writer.*" It is quite clear that my recent purchase of a type writer may prove an important investment. At all events, when we move into our new buildings, its capabilities will be tested to the utmost. In the practical details of this machine, the drying of the inked ribbon sometimes proves a great source of annoyance, as the blind operator strenuously proceeds with his printing, unaware that for some time, the inked ribbon has refused to colour the type, and that he has been executing a series of *perfectly blank* forms. After some consideration on this point it occurred to me that *glycerine*, from its hygroscopic and its general chemical properties, ought to prove a corrective. By actual trial I found that this addition to the ink, the precise colour or composition of which for type-writing does not appear to be material, any smooth printer's ink serving the purpose, completely removed our difficulties; and that the same remedy is available whenever the ribbon becomes hardened by repeated coats of ink. This drying of the ink has proved a great obstacle to the use of the type-writer for ordinary office work to which, in the hands of a practised operator, it is well-adapted, and the remedy deserves to become generally known.

The group of subjects lately taught by Miss Scott has passed to her successor Miss E. B. Montgomery, who previously held an important position in the St. Catharines Collegiate Institute, and who there, as my position of Head Master gave me ample opportunity of knowing, proved herself a most efficient teacher.

During the past year, as suggested in one of my earlier Reports, an experimental class was formed in telegraphy, in order, if possible, to make that art contribute its quota to the support of blind persons. Five pupils now receive daily instruction from Mr. Wickens. They already write rapidly, and communications are, during practice hours, constantly passing between the two stations within our own walls. The profound investigations of our distinguished townsman, Professor Graham Bell, and his invention of the Telephone, will ultimately effect a vast revolution in telegraphic science, influencing at the same time, of course, the prospects of operatives both blind and seeing. In its present phase of development, the Telephone requires neither battery nor the other complicated outfit of ordinary telegraphic work, the ear and voice being the only auxiliaries required; and the Telephone would thus if generally adopted, be specially favorable to the keen-eyed blind.

The evening readings to the pupils have been regularly maintained by the resident teachers, assisted by Mr. Truss. The news of the day is first read, and here I have to express my acknowledgments to the proprietor of the *Daily Witness* (Montreal), and the proprietors of the *Daily Mail* and *Daily Leader* (Toronto), for their great kindness in contributing gratuitously to our newspaper literature. The teachers frequently introduce in their reading selections from standard authors, whose works I am adding to our library as funds permit. To those benevolent persons whose sympathy follows us in our work, I would most respectfully suggest that gifts of certain classes of books would prove most valuable: (1) in embossed characters, Moon type books (of which there is quite a dearth with us), and any of the publications of the American Institutions; (2) in ordinary type, recent works of reference, and good editions (if possible students' editions) of standard authors. In the latter class, the fact that the books have been used and have been somewhat soiled will not diminish their usefulness. These evening readings are occasionally varied by debates, concerts and literary entertainments, the pupils having been prepared for these occasions by the reading-staff above-mentioned, who do not measure their services to the Institution by merely observing hours of duty. I have to renew my acknowledgments to the Honourable David Christie, Speaker of the Senate, for the proceedings and the Blue Books of the Dominion Parliament.

Before leaving our literary class-rooms. I must direct your attention to their present defective furniture. The desks are most clumsy and unsuitable; and they were so badly constructed that they are constantly under repair. A re-equipment of these rooms is urgently needed, and a uniform style of desk adapted to our special work should be provided throughout our entire suite of class-rooms. The educational apparatus will have to be constructed under my own supervision, as I have above indicated.

Musical Department.

Two pupils of this Department have by their own strenuous exertions, together with such assistance as, under the present arrangements, they could obtain from Mr. Cheesbro, qualified as piano-tuners, and they are meeting with most encouraging success. The last pupil sent forth, Mr. W. G. Raymond, informs me that he has earned on an average \$8 and \$9 per week, and that his earnings on particular days have reached \$4.75. Everything that has appeared to me likely to promote Mr. Raymond's success, has been done. A tuning outfit has been provided, and, in default of other funds available for such an expenditure, the workshop revenue, as kindly suggested to me by Mr. Truss, and approved by you, has borne the charge. In piano-tuning, a wide avenue of useful industry is open to the blind; for success depends here not on sight or even touch, but on a delicate musical sense which the sightless, undistracted by surrounding objects, can cultivate to the highest degree of refinement. Piano-tuning is a science as well as an art, and in both a blind man has given the law to the world. The first writer who accurately investigated the principles of piano-tuning, and framed its rules, was Claude Montal, a blind pupil of the Government Institution at Paris. At the *Institution des Jeunes Aveugles*, Montal as a student commenced, and, as a professor, matured those researches which have ever since made his work the European standard of piano-tuning. His after success as a leading piano-manufacturer, and the success of many other blind persons in similar directions, prove that even the fine mechanical details of musical instruments are quite within the grasp of the blind. The Paris Institution, under the liberal expenditure of successive French Governments, has enabled many a blind youth in France to emulate Montal's success. M. Depuis, another *élève*, has for many years held the same supremacy in Orléans as Montal attained at Paris. The United States furnish us with abundant encouragement in this direction. At the Indianaopolis Convention (1871), Superintendent Wait reported, as within his own knowledge, the case of a blind tuner in New York earning \$25 per week. Superintendent Patten stated that, in 1869, he had visited a blind man, Joseph Wood, employed as chief tuner in a large Boston manufactory at \$1,500 per annum. The same Superintendent further reported two blind *ladies* in Arkansas as successful tuners. Superintendent Wait arguing from his own experience of the mechanical skill that blind girls acquire in the management of various kinds of sewing machines, apprehended no difficulty on the mechanical side of the question. Principal Campbell, of Normal College, reports the British Isles as a good field for *efficient* blind tuners. He has arranged with Messrs. Broadwood & Sons, and Messrs. Brinsmead & Sons—the great manufacturers of pianos in England—to receive as apprentices the tuning pupils of the College after they have attained a certain proficiency. If our Canadian manufacturers and repairers imitated the example of these great English houses, it would much redound, not alone to their humanity but to their profit. The tuning and repairing of reed organs were, after a most instructive discussion at the Philadelphia Convention, 1876, commended to the earnest attention of Institutions. When our new buildings are thrown open, I hope to devote a small room to the instruction of pupils in the tuning and minor repairs of both pianos and reed organs, and I shall ask of you a small appropriation for the necessary equipment.

Miss Alexander has successfully launched one of her senior pupils as a music teacher. This poor blind girl has, with a brave and noble heart, undertaken the support of her blind father, and of her little brothers and sisters. May the success she so well deserves attend her! We could have wished, however, that she had been able to remain longer with us, and especially that she had become familiar with the embossed musical publications that have only just appeared, and which Miss Alexander now, with most gratifying results, makes the subject of daily drill. These publications are of extreme interest and importance to the musical blind, and especially to those qualifying as musical instructors. Mr. Kneass and Mr. Hutton have, for the past year or two, kept up a noble rivalry in creating this musical literature for the blind, wisely selecting, however, different lines of publication. Mr. Kneass, who is a successful blind publisher, issues his music in two different forms of notation, according to the style and complexity of the score. (1.) First we have the staff notation, which is simply a reprint, though in very large and bold relief, of the common music score used by the seeing. This, of course, occupies much space, and is best adapted for purposes of elementary instruction, for psalm-tunes and for other church music of a simple character. Some thirty years ago, the idea of such a musical literature for the blind occurred to the authorities of the

Philadelphia Institution, and three volumes of hymn-tunes were issued, which however, have long since passed out of print. At a later date the idea was revived by Dr. A. D. Lord, the late able and deeply-lamented Superintendent of the New York State Institution (Batavia); and I have in my possession some sheets of embossed staff-music, struck off under his direction. These almost forgotten experiments have been taken up and improved upon by "The National Association for Publishing Musical and Literary Works for the Blind," who have committed to Mr. Kneass, of Philadelphia, the typographical execution of their scheme. The scheme was most appropriately introduced by issuing, in raised letters, Marx's *Universal School of Music*, translated by Wehran, and specially edited by Mr. D. D. Wood, Musical Director of St. Stephen's Church, Philadelphia. This most valuable publication is in two volumes, the first being devoted to elementary principles, the second to the higher branches of musical instruction. It is illustrated by musical diagrams, executed by Mr. Kneass, in beautiful relief. This instruction-book is now being followed up and enforced by an extensive collection of hymn-tunes (without words), edited also by Mr. Wood. The value of these to blind persons engaged as church organists is very apparent. Under Miss Alexander's skilful instruction, twelve of the senior pupils have, within a surprisingly short time, learned to read this music for themselves, and have for the first time become acquainted with the printed form of music, as it is used by the seeing. (2.) The second kind of music score employed by Mr. Kneass is called the "literary notation." By the use of ordinary Roman letters, he expresses all the forms of ordinary printed music, and in about equal space. This notation has already, through Mr. Kneass' *Quarterly Journal of Music*, made legible to the blind such masterpieces as Mozart's *Agnus Dei*, Beethoven's *Sonatas*, Gounod's *Ave Maria*, and Schumann's *Traumerei*.

Another step remains to complete the mechanical forms of musical instruction; that is, a notation which a blind person can write, and can read when written. This most necessary complement is being worked out by Superintendent Wait, of the New York Institution. Mr. Wait has devoted many years to the practical applications of point print, and the New York system as arranged by him for literary work has become one of the most valuable instruments of institution work. The successful application of his system to music will be a fitting complement to his previous achievements. Mr. Wait has selected for his foundation Schmitt's instruction book, and has just re-produced in it the point print system that he first announced in outline, at the Boston Convention (1872), the point print transcription being comprised in three volumes. I have ordered some copies, and the girls who have so successfully mastered the other departments of musical notation will, with the same instructor, undertake this, so that its merits may be fairly tested and impartially reported on. Its potential value is so great that Mr. Wait's musical notation deserves a prolonged trial and a patient jury.

From all the foregoing it is apparent that the musical instruction of the blind is entering on an entirely new phase. The teaching of this subject has hitherto proceeded by reading aloud to the pupil the ordinary printed music, note by note, or measure by measure, according to the pupil's capacity. Now that music has been made legible to the blind, this laborious and mechanical process will be superseded by the pupils' own previous study of the composition; and, while seated at the piano or organ, one hand can read, while the other hand plays the score. The time of teachers can thus be devoted to the higher parts of the subject; and, if music-reading is still required, it can be done by a senior blind pupil, through the aid of these embossed publications. Further, a pupil possessed of the point print notation can form legible portfolios of the music hereafter required for the instruction of pupils or for church services. Music has proved so remunerative an employment to the blind, wherever it has been fairly tried, that I have no hesitation in recommending a somewhat bolder policy than we have hitherto pursued. The geographical position of Brantford is not very favourable for securing at a moderate remuneration the services of musical specialists for a short time daily. There are, however, one or two musicians residing in the neighbourhood who have attained distinguished excellence in special lines of their profession, and it would be of great importance to secure their services at the Institution for an hour or two a day. In this way, and by the addition of a few blind music readers to relieve the teachers of the merely mechanical work, the teaching-staff can be greatly strengthened without much increasing our expenditure. At present the staff consists of the two teachers already named, and of Miss Forster, part only of whose teaching can at present be devoted to music, owing to the pressure on the literary and industrial departments. Owing to the lack of both teachers and instruments, I am com-

pelled to refuse musical instruction to a large majority of the pupils applying for it, and to devote our few instructors and instruments to those whose natural aptitude and future prospects give them the first claim. Though by no means are all of them natural musicians, all these blind children have an intense yearning after music, the ear is to them the great avenue of enjoyment, even where the blind child is also deaf, he will by chance and furtive practices at a piano learn to play many pleasing airs. It is often a very painful task to refuse to these poor children what would not only carry refinement into their homes, but prove a solace in their life-long afflictions.

The centre aisles of the Music Hall have been re-seated with convenient and comfortable benches; and I hope that the coming year will enable us to provide the complementary number. The great want, however, of both our Music Hall and our Music Department remains still unsupplied—a *large pipe organ*. Our pupils have now begun to go forth as teachers and church organists, but as yet we have had nothing better to offer them in the way of instruction or practice than what a reed organ or a piano can supply—a manifest wrong to both the prospects of the pupils and the reputation of our school. Mr. Barrington, the Senior Music Teacher of the Baltimore Institution, says, “For those commencing the study of the organ, the reed instruments are of considerable service, but to more advanced pupils they are of little benefit, and may even be detrimental. The reed organ is almost entirely different in construction from the pipe organ, and has few, if any, combination of stops usual in the latter; it is, therefore, manifestly an impossibility to give any one a proper conception of registration on this instrument, which is, indeed, although possessing considerable merit, totally inadequate to meet the requirements of a finished organist.”

It is further the fact that the pedals of reed organs vary so much in dimensions from the settled and uniform standard of all pipe organs, that pedalling on the latter has to be learnt all anew, so that previous training on the pedals of a reed organ is a positive embarrassment. Teachers, therefore, as a temporary substitute, often purchase a set of regulation pipe organ pedals, and attach them to a piano, rather than allow their pupils to acquire a vicious system of pedalling. The leading Institutions for the Blind in all parts of the world are equipped with large church organs,—in some cases, as at Upper Norwood, with small auxiliary pipe organs also, for more elementary instruction. The large instruments generally range in value from \$5,000 to \$15,000. About half the smaller of these sums would furnish us with an instrument, destitute of external ornamentation, but possessing two manuals, and such a complete selection of stops as would cover all the indispensable requirements of organists. It is certainly not creditable that the Institution representing the Legislature of this vast and wealthy Province should continue destitute of so necessary an equipment.

Industrial Department.

We have a year of excellent results to exhibit in the technical instruction of the pupils, both boys and girls:—

1. *Work shop and cane-sealing Instruction.*—The work-shop at present accommodates 22 willow-workers, and this full complement is maintained by drafts from the literary classes. Preliminary study in these classes is not only essential for the culture and refinement of the blind, but after many experiments, I find it quite essential for their progress in any form of technical training. According to the precedent of the last two or three years, Mr. Truss is again able to show on this year's operations a handsome balance to the credit of the work-shop, after charging the account with all working expenses, excepting, of course, the Trade Instructor's own salary.

The past session has, in true educational results, proved much the best that the workshop has yet seen. The pupils, relieved of the presence of one or two ill disposed and intriguing *em-ployés*, have given their undivided minds to their teacher's instructions, and a thoroughly sound feeling now prevails. Mr. Truss is not only successful in his technical training, but, what is of vast importance, he develops manly and truthful habits in his boys. A considerable number of his basket makers of former sessions are now earning their own livelihood, and this greatly strengthens the courage of the apprentices under instruction. The organization of an efficient school in any branch of technology is a most arduous problem; and, as may be surmised, the fact of the students being blind does not assist the solution.

A brief outline of the system that, after various experiments, I have finally adopted,

may prove interesting to general readers of this Report, though of course already familiar to the Inspector. The regular course of training in the willow shop extends over at least four full sessions, and includes 25 leading forms of willow-ware, besides such forms as may be specially ordered. In the second or third year of their course, our apprentices, being usually sons of farmers, are expected to arrange, through their friends at home, the preparation of a quarter-acre of land for willow plants. Then I furnish gratuitously from the Institution willow beds, about 3,000 cuttings to form the future plantation. In this way an ample supply of the finest willow awaits the young basket-maker on the expiration of his apprenticeship. If the finished apprentice stands well on our books, both as to conduct and proficiency, he is furnished, also gratuitously, with a set of willow worker's tools (12 pieces), a set of blocks, a set of Mr. Truss's models for blind workmen; also a supply of peeled willow, sufficient to last from the middle of June—when he leaves the Institution—to the middle of October—when his own harvest is due. The blind basket-maker thus starts in life under favourable auspices, and, to ensure success, he generally has but to add to his technical equipment the personal capital of honest work, thrift and intelligence. We are now frequently gratified by finding in the prize-lists of the various Central and County Fairs the names of our ex-pupils, often with special distinction, for the excellence of their work.

In developing this system of training, a most formidable obstacle confronts us in the physical weakness of the blind. From sheer debility, resulting from long disuse of the muscles, many even of the adult blind can make only the lighter forms of willow ware, and a very considerable number cannot weave such willow as even a hushel basket requires, and are thus deterred from a most profitable branch of their trade. They also exhibit great want of endurance under prolonged hours of labour. Mr. Truss, with admirable devotion to his work, has been, in his hours of relaxation, attempting to re-build the thews and sinews of his boys; but the mischief is too deep-seated for any remedy short of such regular physical education as daily drill in a gymnasium can alone supply. The surplus earnings of the shop for this year and next year would build and furnish such a gymnasium as I require; and this would be a very appropriate application of the workshop surplus. The continual influx of new pupils will soon necessitate an extension of the workshop classes; but the upper floor of the present building will become available whenever the men-servants are transferred to the attic of the newly-erected wing.

The cane-seating classes, also under the instruction of Mr. Truss, comprised thirty-six pupils,—eighteen of each sex. Already some of the girls have made a practical use of their training, and, taking home cane with them at the summer recess, have re-seated the worn-out furniture at their homes. During the next vacation I purpose to try whether some of our boys cannot take a similar lesson in self-help. Furnished with a bundle of cane, a hodkin, a penknife, and a few pine wood pegs, an active blind boy ought to procure, by a house-to-house canvass, enough of profitable work to support himself during vacation without leaning upon his friends. In conducting all such industrial experiments I am much indebted to Mr. Truss, whose services have become of great value to me, quite independently of his attendance in the workshop. I should feel much gratified if you could arrange, within our own grounds, the erection of a cottage for Mr. Truss, so that he may live within easy reach of his work and of his evening duties, and that he may be relieved of the discomforts of the poor tenements to a choice among which he is at present confined.

Girls' Industrial Work.—For convenience and efficiency of management, the entire industrial instruction of the girls (except in cane-seating, which Mr. Truss teaches), is now superintended by Miss Tyrrell, with such assistance as our limited staff enables me to lend her. Miss Tyrrell has thrown wonderful life and activity into what was formerly, in certain branches, mere torpor and stagnation. The simple figures occurring in this paragraph will show how much useful and artistic work blind girls can execute when directed by such a teacher. We have by no means, as yet, in this Institution, exhausted the industrial capabilities of blind girls, but the following list of employments will prove interesting, as showing the limits now reached in Ontario:—

Bead-work, in an endless variety of forms and colours; the articles most commonly made being vases, baskets, reticules, jewel-cases, chains, bracelets, napkin-rings, satchels, witch-pockets, purses netted in beads, flowers in many rich colours and graceful forms, toy imitations of chairs, glass-ware, tea-services, etc.

Seine-twine work.—Card-baskets, reticules, table-mats, etc.

Perforated card work.—Alphabets, patterns, brackets, needle-books, match-boxes, hair-pin boxes, ornamentation of picture-frames, etc.

Tatting.—Trimming in various designs.

Netting.—Purses and tidies.

Hair-pin work in various forms.

Crochet.—Scarfs, tidies in yarn and cotton thread, Gordon braid edging, Shetland wool work, Berlin wool work, moss, coral, and fancy lamp-mats.

Splint-work.—Wall-pockets, card-racks, easels, picture-frames, etc.

Hand-sewing, plain and fancy.

Hand-knitting, plain and fancy.

Machine sewing.—Hemming, tucking, general plain-sewing for Institution use.

Machine-knitting.—Mats, square and circular ; mufflers, Afghans, tidies, socks and mittens for the various Government Institutions.

The market for fancy wares is so restricted, that we constantly require to draw upon either our own ingenuity or the devices of others for fresh and graceful designs. Miss Tyrrell extracts from the most unexpected materials new means of employment for blind girls ; and we only require on the girls' side of the house, a wing similar to that now provided on the west side, to give our industrial training its proper development. The value of the small fancy wares manufactured during last session was \$402.76.

Sewing-machines.—With the view to settling the question, what form of sewing-machine is best adapted to the use of a blind seamstress, I have made a thorough practical trial of the "Domestic," the "Singer," and the "Wheeler & Wilson" machines,—the first two having shuttles, the last having a bobbin,—and all being machines of the very latest and best construction. The following summary will prove of value to all interested in the technical education of the blind ; the valuation of the machines being of course stated with reference to the wants of that class. The machines are numbered in a descending scale of merit from 1 to 3.

I. *Easy running.*—(1) The Domestic, much the lightest ; (2) Wheeler & Wilson ; (3) Singer.

II. *Threading of the Needle.*—(1) Wheeler & Wilson ; (2) Domestic (for a left-handed person easier than the Wheeler & Wilson) ; (3) Singer, very difficult to the blind, owing to the position of the eye of the needle.

III. *The Starting and Guiding of the Work.*—(1) Domestic, distinctly superior to the other two ; (2) Singer ; (3) Wheeler & Wilson. Owing to the length of the "presser-foot" in the last machine, the blind have some trouble in guiding the work ; and further the threads sometimes tangle at the starting. The excessive breadth of the "presser-foot" may be contracted by notching the inserted piece.

IV. *Threading of Shuttles.*—The substitution by the Wheeler & Wilson of a bobbin for a shuttle, gives it a distinct superiority here. Of the two shuttle machines, the blind prefer the Domestic, though the frequent removal and replacement of the two small and easily lost fittings (technically called the "end-piece" and "shuttle-spring"), are obvious objections. [There is, I believe, but one agent for the Domestic in Ontario, and he resides in Windsor.]

A recent Report of the Kentucky Institution strongly recommends for the use of the blind operatives the new Wilcox and Gibb's machine, with automatic tension. The inventor of the ingenious improvements recently introduced into this machine, has, at the request of the authorities of that Institution, most kindly made these improvements equally accessible to the blind by a special contrivance. "The regulation of the cylinder in the slot aids in regulating the tension, and the selection of the needle. To the blind the numerical condition of the cylinder is given through the ear. By the use of a small lever, the blind girl can tell perfectly when the machine is set for making any desired number of stitches to the inch, and the size of the needle to be used for that purpose." It is evident that we shall have to add a Wilcox and Gibb's machine to our equipment. Our experiments, so far, confirm the favourable opinion that Superintendent Wait has expressed of the Domestic sewing machine ; but we have also established the fact that the Wheeler and Wilson of the new pattern, is quite within a blind operative's control ; while the Singer machine and its imitations, though ranked in the highest class for sighted persons, present greater difficulties to the blind. A large number of our girls now work daily on sewing machines, and, during vacation, they prove quite helpful at their own homes. Their friends, in purchasing new machines, should

select from the list one of those that experimental teaching has approved. This is only rational, though, as far as possible, we endeavour to qualify our pupils to use *any* ordinary sewing machine.

Knitting-Machines.—The first successful experiment in applying blind labour to a knitting-machine was announced by Superintendent Wait at the Philadelphia Convention, 1876, and practical illustrations were then given. Within a few weeks I had purchased a Dana Bickford machine, as used by Mr. Wait, and I committed the necessary educational experiment to Miss Tyrrell. Succeeding beyond expectations, I was enabled, by Mr. Inspector Langmuir's active exertions on our behalf, to increase our equipment to four Bickford machines, and to keep them fully employed. On these machines, during only a portion of last session, our blind girls knitted *over a thousand pairs of socks* for the Central Prison, besides, of course, doing a large quantity of hand-knitting. We are now filling similar large orders for other Public Institutions, and where we are permitted to supply our own material as well as work, I will venture to affirm that the Public Institutions will be better served than heretofore. In knitting, as well as sewing, it is of the first consequence that the blind operative should have the most efficient machine that she can use. I have, therefore, in this direction also, broken new ground, and explored the merits of two other knitting machines, the *Frauz and Pope*, and the *Lamb* machines. The *Frauz and Pope* is, like the Bickford, a circular machine, and, as now improved, appears to yield better results, while free from the troublesome clasp-ring that Bickford, for some reason, employs; finally, it is represented by a manufacturing or semi-manufacturing agency at Georgetown, Ontario. The main objection to these two cylindrical machines is their want of adaptability to work of varying sizes, necessitating a corresponding assortment of cylinders and needles. The *Lamb* machine is much more expensive than either of the foregoing, but it possesses a far greater range of work, containing within itself the necessary adjustments; unlike the others, it is oblong in form. This machine, owing to its complexity and lateral extension, had hitherto been considered as altogether beyond the use of blind operatives; but Miss Tyrrell has effectually disposed of this fallacy, and thus has opened up to her pupils new paths of industry. At my request, she selected for her experiments, three *entirely sightless* girls, one quite untrained on any knitting-machine, the other two trained by Miss Tyrrell herself on the Bickford machine. All three have learned to use the *Lamb* knitting-machine with perfect facility, two can pass from one machine to the other without confusing their entirely distinct mechanisms, and one has a perfect control of all the machines above enumerated.

Outfit of Pupils, &c.

As the pupils in the various technical Departments complete their training, and acquire sufficient practice here, the question of an outfit must be met. The leading American Institutions have for many years pursued a most enlightened and generous policy in this direction, and the results amply justify the policy pursued. On every hand, in the United States, we meet with blind persons occupying, and worthily occupying, positions of great trust and responsibility. They almost uniformly attribute their success to those noble Institutions that first rescued them from helplessness and despair, and then gave them such an outfit of knowledge, skill, and appliances as enabled them to take their part in life. The transition to the British Institutions, and their lumbering, wasteful, system of patronizing and pauperizing the blind is not comfortable to our British vanity, but is eminently instructive to us in shaping our system in Ontario. I was greatly gratified to learn, Sir, that you have decided to recommend an annual appropriation, distinct from ordinary maintenance, and applicable to providing meritorious pupils with technical outfits, and with embossed publications. The adoption of such a course will mark an era in the history of this Institution. The system that I at present pursue, of sending annually one or two officers to visit our blind population at their homes, and report minutely their mental and social condition, also their modes of employment, will enable me, when aided by your proposed fund, to recover from imbecility and idleness many of these poor blind folk whose lives are now running to absolute waste. Last summer's visitation, which was most faithfully and efficiently done by Mr. Wickens, was much facilitated by the Honourable the Minister of Education, who, with the utmost kindness, inserted in the previous year's School Returns inquiries respecting the Blind of Ontario, and made the answers accessible to us. The information obtained proved of great value, and these

inquiries will, I trust, be annually repeated. The ingathering of the youth whom these inquiries show to be eligible for admission would be much facilitated if our Canadian railways exhibited a little more of that generosity that railways throughout the United States extend to this afflicted class. Through the kind exertions of Dr. Palmer, the Principal of the Belleville Institution, the leading railways granted last summer to the pupils of both Institutions, return tickets at single fares.

Religious Instruction.

I am much indebted to the Brantford clergy of all creeds for their sustained interest in our Institution, and for their regular ministrations at our Sunday services. I desire also to acknowledge the continued attention of the Young Men's Christian Association, and of S. M. Thompson, Esq. The Catholic pupils are, by the kind arrangement of the Rev. P. Bardou, visited weekly by the ladies of the Sisterhood of St. Joseph, who do most valuable benevolent work in the most quiet and unostentatious manner. Catholic pupils have for some time felt the want of a raised-type Catechism, suitable for their religious instruction. Mr. Kneass published in 1867, under the sanction of Bishop Wood, of Philadelphia, a little work entitled "Manual of Devotion for the Catholic Blind," but it is now out of print, and not procurable. I urged this question on the publishers that I met at Philadelphia last year, and I am glad to see that Mr. Huntoon has already moved in the matter. He announces a Catholic Catechism among the forthcoming publications of the American Printing-house for the Blind. The religious opinions of the other leading churches are already very fully represented in raised type publications, the doctrines of even Swedenborg not being overlooked. It is, perhaps, unnecessary to say that no interference with the religious convictions of our pupils is permitted; but it affords me great pleasure to state that the representatives of all religious denominations have, with the kindest consideration, invariably avoided topics of a painful or of a controversial character.

Medical Department.

The sanitary condition of the Institution has received the closest attention; the drainage and ventilation, where found defective, have been promptly dealt with. Dr. Corson, our staff physician, now attends daily, and gives the Institution a large share of his time and attention. Very many of the pupils require, for ophthalmic disorders, various forms of treatment, involving much attention, judgment, and skill; and in this special branch of the profession, as well as in his general Institution practice, Dr. Corson has met with conspicuous success. Surgical operations, where found necessary, have been performed by Dr. A. M. Rosebrugh, of Toronto; and in cases where that oculist has recommended such a course, the pupils have been sent to the Toronto Eye Infirmary. They return from the Infirmary generally much benefited by the surgical assistance there received; but usually, from their still defective vision, they are unable to perform the ordinary avocations of seeing persons; and therefore they of course still require the technical training that this Institution is designed to give.

Repairs and Improvements.

The usual annual repairs have been carefully made. These repairs are now completed during vacation by the Institution employes, when relieved of their ordinary duties. The present staff of working employes are most faithful and industrious. Mr. John Hay has recently been appointed engineer, and he has thrown into his department much vigour and mechanical skill.

The grounds have been well worked by the gardener and the farm-hand, and have yielded magnificent crops, leaving a handsome balance at the credit of the grounds, after every item, near or remote, has been zealously charged against them. From a recent announcement in Parliament, it was understood that for some years to come an appropriation would be made annually for the improvement of the Institution grounds, but last year the matter was somehow overlooked, and for want of funds I could do very little in the way of new work. I planted, among the young trees and throughout the grounds, several bushels of beech-nuts, walnuts, chestnuts, butternuts, and horse-chestnuts. These seedling trees, if properly cared for, will hereafter add much variety and graceful foliage to the landscape; but, in the mean-

time, we must continue the annual plantation of forest and nursery trees. A majority of the trees that I previously planted are doing well, and are beginning to relieve the grounds of their bleak desolation. With an appropriation of some \$500, continued for a few years, these grounds, which are none too large for the proper development of the Institution, can not only be made to promote more fully our special work, but can be converted into a most ornamental public demesne. The transformation that has within two years been effected, will, I trust, sufficiently illustrate the advantage with which public money can be expended upon the Brantford Institution.

It is my duty, sir, to recommend for your early consideration the question of our gas supply. For a considerable time past the gas supplied from the Brantford Works has been very bad and insufficient; and at times we have been, without warning, left in total darkness. The use of coal-oil here is too dangerous an alternative to be entertained. I think that in view of the excessive cost of the present supply, which is at once both bad and insufficient, the Institution should have its own gas works, using as material "clean crude" petroleum, which is admitted to yield the cheapest and most brilliant illuminating gas. The saving effected in two or three years would certainly pay the entire cost of the gas-works, while we should be insured against the recurrence of the present hazardous state of affairs.

In the older section of the Institution buildings certain alterations have become necessary, which exceed the limits of ordinary maintenance. The draught of the main smoke-stack has become so impaired by numerous, but necessary, openings that an increase in the height by at least 20 or 25 ft. is urgently required. The soft pine floors of the main halls and corridors have become so worn with inequalities that entirely new flooring of oak ought to be provided. The condition of the ceilings requires immediate attention. These plastered ceilings, notwithstanding repeated and careful restoration, continue so dangerous that I would strongly urge a general replacement by ceilings in wood. The ceilings of the main halls ought, by the introduction of panels and coloured woods, to exhibit a little of that decorative design which hitherto has been too much neglected among us. Public buildings, their architecture, their fittings and surroundings, are now expected, and very properly expected, to not only subserve their own especial objects, but also to lead and direct the public taste. In England even Institutions erected by private benevolence now consider this point attentively. The new Normal College for the Blind, at Upper Norwood (England), well illustrates how attractive such a place may, by a small expenditure, be made. The cosy, well-lighted class-rooms abounding in thoughtful appliances, and, surrounding these class-rooms, the delicious bits of shaded greensward, the parterres of sweet scented flowers breathing their fragrance against the windows, the cages of singing birds,—all give the place a delightful home-like air that induces the inmates to forget their privation, and promotes a condition of mind most favourable to successful study. The fact that all these details have been planned, *without sight*, by Principal Campbell and Dr. Armitage, will be a surprise to those who imagine that, because blind persons do not see, therefore they do not *enjoy* graceful objects or attractive surroundings. To the blind the splash of fountains, the perfume of flowers, and the voice of birds convey a subtle delight that is not equally felt by the seeing, whose other senses have in a manner been deadened by the disproportionate cultivation of the eye. It is surely the highest province of administration to make the very walls and grounds of our Public Institutions yield to their afflicted inmates an elevating and educating influence, that influence of æsthetic surroundings which controls us all even in the most vigorous play of our faculties, but which is most sorely needed when the mental or physical organization is defective.

Additional Accommodation.

Early in the present year I submitted for your approval a series of detailed plans showing the additional accommodation required to relieve the present over-crowded state of the Institution, and to provide for its further development. These plans comprised (1) The extension of the main building by the erection of two wings,—one on the boys' side, and one on the girls'; (2) The extension or the enlargement of the present north building. The plans were further understood to involve the erection of a residence for the Principal and the consequent vacating of the rooms now occupied by his family. This scheme of extension, having been approved by you, and adopted by the Government, the west or boys' wing was proceeded with, and it is now fast approaching completion. This wing will provide *for the male pupils*

the long needed dormitory and class-room accommodation, also isolated sick-rooms ; it further includes bed-rooms for the male servants who are now temporarily housed in part of the workshop. The corresponding wing for girls' accommodation is most urgently required: the available space on that side is, owing to the presence of the female servants, even more restricted than on the boys' side, and *between fifty and sixty females are now crowded together in the large dormitory*. Such over-crowding is most dangerous, and, if long continued, cannot fail to bring disaster. The above scheme of extension contains nothing that is not absolutely essential for the proper working of the Institution, indeed it does not exceed the dimensions of the scheme sketched out on the original Institution plans as proposed by the first Government of Ontario, though the number of youthful blind in this Province is now definitely ascertained to be twice as great as the number was then supposed to be. The new wing has been erected at a very moderate cost by the well-known contractor, Mr. William Watt, and exhibits sound materials and careful workmanship. The clerk of works, Mr. William Mellish, is most unremitting in his attention ; and his thorough knowledge of structural details renders his presence here of the greatest value. The extension of the frontage will add much to the appearance of the Institution ; though of course the erection of the east wing is necessary before the full effect can be seen. It is most desirable that the buildings still remaining to be constructed be undertaken at the very opening of next spring, so that they may be ready for occupation in September, 1878, and that our next session may, from its commencement, be free from the constant difficulties and anxieties that the present over-crowded state of the Institution involves. As I am applying for an additional expenditure of public money, I have in this Annual Report sketched more fully than usual the past year's operations. This sketch of the work that, during a single year, has been accomplished within our walls, will, I trust, dispose the Government to treat this Institution with increased liberality. A large number of youthful blind still lie without our walls, neglected, and, year by year sinking into lower mental and physical condition. Many of these ruined bodies and minds that we are now struggling to rebuild were once children of the fairest promise. They are now helpless and almost hopeless. What chance for such unfortunates in the stern conflict of life ; and why, by delaying help to the young, furnish more recruits for the same forlorn-hope ? Most of these sightless youths are *not blind of intellect*, but merely await timely light to unfold their powers.

"Deliver not the tasks of might
To weakness, neither hide the ray
From those not blind, who wait for day,
Though sitting girt with doubtful light."*

In making this appeal I feel assured, sir, that I have your entire sympathy, and that my suggestions will receive the same kind consideration as heretofore.

I have the honour to be, Sir,
Your obedient servant,

J. HOWARD HUNTER, M.A.,
Principal.

* Tennyson, *Love thou thy Land*.

STATISTICS RESPECTING THE BLIND OF ONTARIO.

Note.—The names and addresses of the following blind persons are on file in the Principal's office, Brantford Institution.

1. The blind of Ontario, under 21 years of age, by counties and cities:—

	Males.	Females.	Total.
Brantford.....	2	2	4
Brant	2	2	4
Bruce	2	3	5
Carleton	3	1	4
Dundas	4	2	6
Durham	2	3	5
Elgin	3	1	4
Essex	2	1	3
Frontenac	2	2	4
Glengarry	3	0	3
Grey	2	0	2
Hamilton	3	4	7
Halton.....	1	2	3
Haldimand	1	4	5
Hastings	7	4	11
Huron.....	3	8	11
Kent	8	9	17
Kingston	2	3	5
London	2	3	5
Lambton	2	3	5
Lennox	2	5	7
Lincoln.....	2	1	3
Leeds	4	2	6
Lanark.....	0	2	2
Middlesex	4	4	8
Northumberland	1	4	5
Norfolk	4	3	7
Oxford	2	3	5
Ottawa	0	6	6
Ontario	5	4	9
Perth	3	3	6
Peterboro'	5	4	9
Prince Edward	4	2	6
Preseott	0	1	1
Russell	1	0	1
Renfrew	7	2	9
Simcoe	7	8	15
St. Catharines.....	3	1	4
Stormont	1	1	2
Toronto	6	13	19
Victoria	3	4	7
Welland	2	1	3
Wellington	7	5	12
Waterloo	4	2	6
Wentworth	8	4	12
Carried forward	141	142	283

	Males.	Females.	Total.
Brought forward.....	141	142	283
York	6	5	11
Algoma District.....	1	0	1
Muskoka "	1	0	1
Nipissing "	0	1	1
Unkuown.....	3	2	5
Total	152	150	302

2. Of these, 98 males and 80 females, 170 in all, have been awarded admission to the Institution, but 12 males and 5 females have not yet attended the Institution.

3. There are 71 ex-pupils now absent from the Institution : of this number :—

- 27 are self-supporting in whole or in part ;
- 8 are detained at home to assist their parents ;
- 8 are detained at home on account of ill-health ;
- 8 are temporarily detained at home, and expect to return ;
- 11 are undesirable on account of their age ;
- 5 are deceased ;
- 2 have emigrated ; and
- 2 have had their sight restored by treatment at the Institution.

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4. The total number of wholly uneducated blind persons under 21 years of age is 129, viz. : 54 males and 75 females.

STATISTICS concerning pupils of Ontario Institution for the Blind, September 30th, 1877.

1. Number of pupils in attendance during each session :—

	Males.	Females.	Total.
1st session.....	7	4	11
2nd "	45	10	55
3rd "	49	33	82
4th "	68	44	112
5th "	72	54	126
6th "	66	64	130
7th " to date Sept. 30th.....	63	59	122

2. Number of Pupils this session up to 30th September, 1877 :—

Males. 63		Females..... 59		Total 122.
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3. Number of Pupils admitted from the first opening of the Institution to 30th September, 1877:

Males..... 113		Females. 80		Total..... 193.
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4. Counties and Cities from which pupils have come:—

Brant	8	Norfolk	7
Bruce	7	Northumberland	4
Carleton	3	Ontario	7
Dundas	3	Ottawa	1
Durham	4	Oxford	2
Elgin	2	Peterboro'	5
Essex	1	Pr. Edward	3
Frontenac	4	Perth	5
Grey	5	Renfrew	2
Haldimand	3	Russell	2
Hamilton	5	Simeoe	3
Hastings	8	St. Catharines	1
Halton	2	Stormont	4
Huron	7	Toronto	11
Kingston	2	Victoria	2
Kent	7	Welland	2
Lanark	1	Wellington	9
Leeds	7	Wentworth	6
Lennox	1	Waterloo	6
Lincoln	5	York	10
London	5		
Lambton	1		
Middlesex	10	Total	193

5. Counties and Cities from which pupils of this session (up to September 30th, 1877) were received.

Brant	6	Norfolk	5
Bruce	5	Northumberland	4
Carleton	2	Oxford	2
Dundas	3	Ontario	4
Durham	2	Peterboro'	5
Essex	1	Perth	3
Frontenac	1	Pr. Edward	2
Glengarry	1	Renfrew	2
Grey	2	Russell	1
Haldimand	3	Simeoe	2
Hamilton	3	St. Catharines	1
Hastings	4	Toronto	8
Huron	4	Victoria	1
Kingston	3	Waterloo	4
Kent	5	Wellington	5
Leeds	5	Wentworth	6
Lincoln	2	Welland	3
London	2	York	4
Lennox	1		
Middlesex	5	Total	122

REPORT OF THE PHYSICIAN.

To J. W. LANGMUIR, Esq.,
Inspector of Prisons, Asylums, &c.,
for the Province of Ontario.

SIR,—I have the honour to report to you that the year has passed without the appearance of disease in any epidemic form in this Institution, and that the cases of severe illness have been limited to a small number. Four adult pupils on the female side were laid aside during the winter by a long tedious illness, which must have tried the patience as well as the endurance of their excellent nurse, Miss Hudson. Two of this number had continued fever, unmarked by the characteristic symptoms of typhoid and in both cases the disease was followed by such sequelae as pleurisy, bronchitis, and subacute rheumatism. All these pupils had inherited bad constitutions, and you will remember that at one of your visits I pointed out one of the number, as in my opinion too delicate a person to bear the sedentary life and application to study, incident to a residence in the Institution. I hope for the privilege of excluding all such applicants for admission hereafter.

As a precaution against the introduction of that loathsome disease, small-pox, it was deemed prudent to give the pupils the benefit of the protection which vaccination affords, and accordingly I vaccinated during the last term a majority of the pupils, especially those found without the characteristic mark of previous vaccination upon the arm. In nearly all the cases of primary vaccination, the operation was successful, while re-vaccination generally failed, thus adding proof to the truth of the medical maxim that "vaccination is an absolute protection to the majority."

The ventilation of the rooms was improved during the year by making communicating openings into the hitherto unused ventilators in the walls beside the chimneys, but these openings are so small to permit that continual renewal of the air so necessary to efficient ventilation. Finding the air impure in the class-rooms, I recommended that a sufficient fire be kept in the grates to produce a current to remove the lower stratum of carbonized air continuously, but the recommendation was overruled on the ground 1st. of the additional expense, and 2nd. the risk of fire, but I hope these objections may yet be overcome.

In my second Annual Report I spoke of the unsatisfactory state of the closets inside the building, and an accident by the freezing of a pipe last winter, was the cause of much uneasiness both to the Principal and myself, and as the result of several consultations between us, I refer you to the recommendations contained in the Principal's Report in respect to them.

The food provided has been sufficiently abundant, varied and of wholesome quality, and the general dietary therefore satisfactory.

As we were congratulating ourselves near the close of last term that no deaths had taken place in our midst, one of the pupils, Charles Cudhie, was taken ill with inflammation of the right lung. For nine days the disease progressed favourably, but on the tenth day new and serious symptoms manifested themselves, and a careful examination of the chest revealed commencing inflammation of the remaining lung, which ran its course with a rapidity and intensity I have never before witnessed; and, in spite of the free use of stimulants, stimulating expectorants, quinine, counter-irritation, &c., he quickly succumbed to his disease.

My thanks are due to the Principal in procuring for my use a pocket-case of surgical instruments, also a pair of universal tooth-forceps, two ear specula, a tongue depressor, a rubber syringe for spraying the throat, and a Politzer Bag for the treatment of deafness. These instruments were a necessity because of their daily use, and I may here remark that while the Institution is essentially educational in its design and object, it is also of necessity partly an infirmary, where the diseases of the eyes and other chronic ailments to which these children of misfortune are subject may receive medical treatment. For this reason I look forward with satisfaction to the completion of the one wing now building and the

other wing now in contemplation on account of the increased accommodation to be wisely provided for this particular department of practice.

The following are the principal diseases occurring in the Institution for the past year :

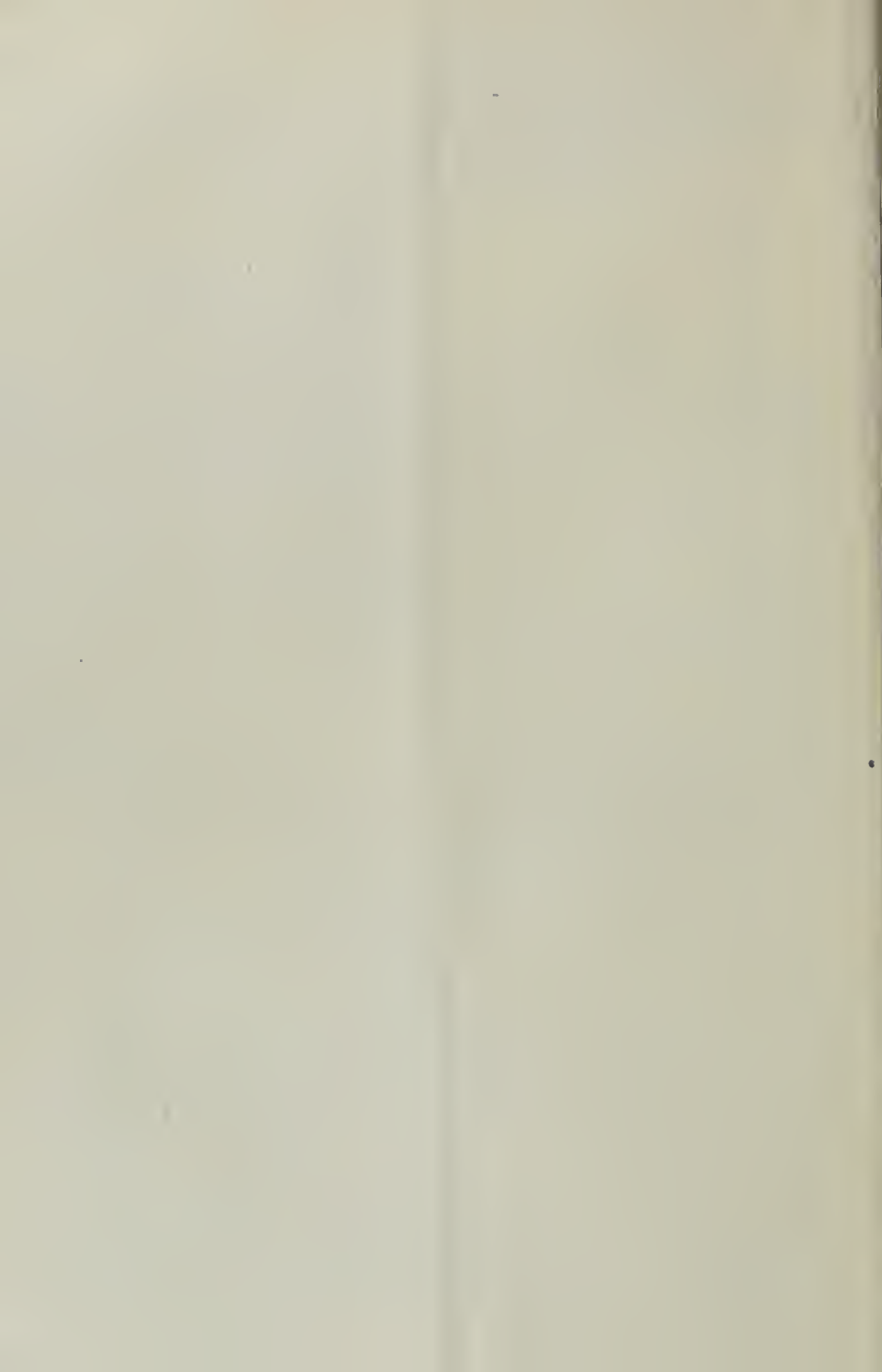
Abscess.	Epistaxis habitual.
Acne.	Furunculus.
Accouchment.	Febris.
Alopecia Areata.	Fibricula.
Adenitis.	Hemorrhoids, (operation).
Aphthae.	Keratitis.
Arthritis.	Lumbago.
Anaemia.	Lepra.
Bronchocele.	Lichen Tropicus.
Bronchitis.	Mammitis.
Carious teeth, extraction.	Menorrhagia.
Caries of bone.	Miscarriage.
Colic.	Morbus Cordis.
Cerumen, impacted.	Neuralgia.
Conjunctivitis.	Parotitis.
Cholera Morbus.	Pharyngitis.
Catarrh, naso-pharyngeal.	Phlegmon.
Cystitis.	Phtbisis Pulmonalis.
Cephalgia.	Pneumonia, double.
Diarrhoea.	Scabies.
Debility.	Suppressio mensium.
Dentition.	Trachoma.
Dysmenorrhoea.	Ulcer.
Eclampsia.	Vaccinia.
Eczema.	Varicella.
Epilepsy.	

My thanks are due to the Principal for the vigilance with which he has guarded the sanitary interests of the Institution, and to the Teachers and officers for kindness and courtesy extended to myself personally in my intercourse with them.

I have the honour to be, Sir,

Your very obedient servant,

WILLIAM C. CORSON, M.D.
Physician.





Wheaton for the School

Acicville to W.S.D.